



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,896	10/06/2000	Ernst August Hahne	320.38785X00	7732

7590 03/01/2004

Antonelli Terry Stout & Kraus
Suite 1800
1300 North Seventeenth Street
Arlington, VA 22209

EXAMINER

KOCH, GEORGE R

ART UNIT	PAPER NUMBER
----------	--------------

1734

DATE MAILED: 03/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/647,896

Applicant(s)

HAHNE ET AL.

Examiner

George R. Koch III

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/7/2004 has been entered.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claim 1, 6-8, 11-13, and 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al (USPN 5,138,971) in view of Watanabe (USPN 3,625,743).

As to claims 1 and 12, Nakajima discloses an apparatus capable of moistening a web that comprises a reversing roller (item 5, figure 4), an electrostatic charging device designed as a corona charging electrode associated with the roller (item 1, figure 4), and a liquid dispensing device (item 9, figure 4, see especially column 3, line 41 to

Art Unit: 1734

column 5, line 22, and claim 1). The corona charging electrode and roller are upstream the dispensing device, i.e., the liquid dispensing device is downstream of the roller

Nakajima only discloses dispensing on one face or side of the web. Nakajima does not disclose structure for dispensing on both faces of the web.

Watanabe discloses dispensers (items 40a and 40b), which dispense to both faces of the web. One in the art would immediately appreciate that spraying on both sides is useful when both sides of the web is being used (such as in magazine paper, wherein both sides carry content), and that spraying on both sides would logically ensure that both sides have similar properties, which is known to be useful for further paper processing, as cited in Watanabe (see column 1, lines 3-22, which discloses the benefits of making paper with homogenous water properties on both sides). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention desiring to ensure homogenous paper properties to use coating devices on both sides of the web as in Watanabe to replace the one sided coating device in the overall apparatus of Nakajima.

As to claim 6, Watanabe discloses that the wrap around at least one reversing roller forms at least a right angle (see item 43a).

As to claims 7 and 15, Nakajima's corona charging device can be interpreted in figure 4 as achieving the tangent line claimed.

As to claims 8 and 13, Watanabe discloses that the water spray heads are grounded.

As to claim 11, Watanabe discloses that the spray heads are located opposite each other relative to the sides of the material web.

4. Claims 9 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima and Watanabe as applied to claim 8 and 12 above, and further in view of Krenkel (US 3,930,614).

Nakajima and Watanabe as applied to claims 8 and 12 disclose that the water spray heads are located opposite of one another on the two sides of the material web (see Watanabe, Figure 4). However Nakajima and Watanabe as applied above do not disclose that the spray heads simultaneously spray opposite sides of one portion of the material web at the same time.

Krenkel discloses spray heads that simultaneously spray opposite sides of one portion of the material web at the same time in the context of electrostatic spraying (see Figure 2). Krenkel discloses that simultaneous spraying avoids mutually disadvantageous influences, i.e., the subsequent coatings and charging treatments interacting with each other. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized spray heads that simultaneously spray opposite sides of one portion of the material web in order to avoid mutually disadvantageous influences.

As to claims 17 and 18, the apparatus of Nakajima and Watanabe as applied to claims 12 and 1 respectively is capable of spraying a free running portion of the web.

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima and Watanabe as applied to claim 1 above, and further in view of Blythe et al (USPN 3,863,108).

Nakajima is silent as to the properties of the reversing roller, except to disclose that it is connected to a ground source (see Figure 4, item 5, which is connected to the universal symbol for ground) as cited in claim 4.

As to claims 2 and 3, Blythe discloses that the reversing roller is preferably highly polished and is even more preferably polished chrome steel, i.e., similar to chrome plated (column 4, lines 18-32). Blythe also discloses chrome plated as another embodiment ("chromium plated roller 2", in column 6, lines 26-33 and "chromium plated roller 23" in column 6, lines 60-68). Chrome materials are known to be good electrical conductors. Blythe also discloses that one would use such a roller "to prevent the film being damaged when it contacts the roller". Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized a polished chrome plated reversing roller which is inherently a good electrical conductor, and smooth due to polishing, as in Blythe in the overall apparatus of Nakajima and Watanabe, in order to prevent damage to the web or film.

6. Claims 5 and 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima and Watanabe as applied to claim 1 above, and further in view of Mitsuoka (US Patent 5,867,760).

As to claim 5 and 10, Nakajima and Watanabe as applied to claim 1 above do not disclose using a roller that has a jacket having a smooth outer surface and a thin coating provided on the smooth outer surface.

Mitsuoka discloses a roller 24, which has a dielectric layer (item 24a) of polyethylene terephthalate formed on an aluminum sleeve 24b. One in the art would appreciate that such a roller provides excellent electrostatic properties, as well as ease in replacing a worn surface. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such a roller in order to provide excellent electrostatic capabilities and ease in replacing a worn surface.

7. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima and Watanabe as applied to claim 12 above, and further in view of Kisler (USPN 4,826,703)

Nakajima and Watanabe are silent as to charging the spray device at an opposite polarity as of that of the corona charging electrode.

Kisler discloses that it is known for the spraying device to be an opposite polarity as the charging device (see, for example, Figure 2a or 4a). One in the art would appreciate that the key element in electrostatic coating is the difference in charge between the two elements, and not the polarities. One would select either version as a design choice. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized, as a design choice, a spray head of the opposite polarity in order to effectively coat the substrate.

Response to Arguments

8. Applicant's arguments filed 1/7/2004 have been fully considered but they are not persuasive.

9. In response to applicant's argument in paper #10, filed 7-22-2003 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., i.e., the 95 to 98 percent efficiencies, i.e.) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

10. Furthermore, as to applicant's arguments that the coating devices of Watanabe would not be used with the coating device of Nakajima, it is noted that the rejection does not propose that it is obvious to do so, but rather, that it is obvious to replace the coating device of Nakajima with the coating devices of Watanabe.

11. In response to applicant's argument that the invention is related to moistening a web and the references show coating a web, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In this case, the

structures for moistening and the structures for coating are similar since moistening is merely a subset of coating, i.e., coating with water.

12. In response to applicant's argument that Mitsuoka is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Mitsuouka is related to electrostatic applications, and discloses a range of materials suitable for electrostatic applications.

13. In response to applicant's argument that Kisler is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Kisler is related to electrostatic spraying applications, and discloses techniques suitable for electrostatic applications.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George R. Koch III whose telephone number is (571) 272-1230 (TDD only). If the applicant cannot make a direct TDD-to-TDD call, the applicant can communicate by calling the Federal Relay Service at 1-800-877-8339 and

Art Unit: 1734

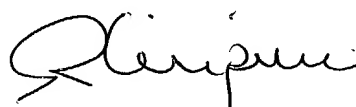
giving the operator the above TDD number. The examiner can normally be reached on M-Th 10-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



George R. Koch III
February 22, 2004



RICHARD CRISPINO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700